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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,861	07/14/2003	Richard T. Takeuchi	03-007	3806

7590 09/14/2005

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PO Box 2607  
Fairfax, VA 22031

EXAMINER
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KRECK, JOHN J

ART UNIT	PAPER NUMBER
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3673

DATE MAILED: 09/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/617,861

Applicant(s)

TAKEUCHI ET AL.

Examiner

John Kreck

Art Unit

3673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-8 and 10-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-8 and 10-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

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### DETAILED ACTION

The amendment dated 6/24/05 has been entered.

Claims 1,3-8,10-12 are pending.

### ***Claim Rejections - 35 USC § 102 and 35 USC § 103***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1,3,4 and 11 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Brassow, et al. (U.S. Patent number 4,906,135) in view of Williams (U.S. Patent number 5,202,522)

Brassow teaches providing a sealed empty subterranean chamber; providing a waste receiving and processing system including a series of buildings and plants; the system including a waste receiving a processing plant ("receiving building"); pumping plant; a redox plant (see 35 and 40: the acid and caustic storage tanks are believed to anticipate "redox plant"); and an equipment housing building. Alternatively, if it is

deemed that the redox plant is not anticipated by Brassow; then it would have been obvious to one of ordinary skill in the art at the time of the invention to have used the Brassow process with a redox plant, in order to process waste.

Brassow fails to teach the spent oil well containing halophilic, thermophilic, and methanogenic microbes.

Williams teaches waste disposal in a sealed empty spent oil well. By applicant's own admission, such spent oil wells inherently include such microbes.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have practiced the Brassow process in a spent oil well; since one of ordinary skill in the art would know that a spent oil well is equivalent to a salt dome for purposes of waste disposal.

Regarding independent claim 11:

Brassow shows the chamber; and waste processing system including receiving a processing plant; pumping plant; redox plant; and housing building. Alternatively, if it is deemed that the redox plant is not anticipated by Brassow; then it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the Brassow system to have a redox plant, in order to process waste. Brassow fails to teach the spent oil well containing halophilic, thermophilic, and methanogenic microbes.

Williams teaches waste disposal in a sealed empty spent oil well. By applicant's own admission, such spent oil wells inherently include such microbes.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have practiced the Brassow process in a spent oil well; since one of ordinary skill in the art would know that a spent oil well is equivalent to a salt dome for purposes of waste disposal.

Brassow teaches the providing a conduit as called for in claim 3.

Brassow teaches the delivering excess slurry to the plant for storage: storage in a particular plant (e.g. redox plant) would have been obvious, based on design considerations.

2. Claims 5-8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brassow and Williams as applied to claim 4 above, and further in view of Berezoutsky (U.S. Patent number 4,417,829); Butler (U.S. Patent number 4,474,053); and Cummings (U.S. Patent number 5,413,432).

Brassow fails to teach the ventilation conduit; collection conduit; pipe; and displaceable conduit. Brassow fails to teach the gas burning system.

Official Notice is taken of the fact that it is well known to provide buildings with ventilation conduits; in order to provide fresh air. It would have been obvious to one of ordinary skill in the art at the time of the invention to have further modified the Brassow process to have a ventilation conduit, in order to provide fresh air to the building.

Berezoutsky teaches a specimen collecting conduit and displaceable extraction conduit, in order to collect samples form underground.

Butler teaches the desirability of sampling and monitoring underground disposal sites.

Cummings teaches a system for generating electricity from gas.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have further modified the Brassow process to have included the conduits, pipe and displaceable conduit; in order to collect samples and monitor the disposal space.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have further modified the Brassow process to have included a gas burning system for generating electricity as called for in claim 5, in order to provide power.

Berezoutsky teaches obtaining a specimen as called for in claim 6.

Berezoutsky teaches electronic monitoring as called for in claim 7.

Berezoutsky teaches vertically displacing as called for in claim 8.

Cummings teaches burning methane as called for in claim 10.

3. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brassow and Williams as applied to claim 11 above and further in view of Berezoutsky (U.S. Patent number 4,417,829) ; Butler (U.S. Patent number 4,474,053); and Cummings (U.S. Patent number 5,413,432).

Brassow fails to teach the ventilation conduit; collection conduit; pipe; and displaceable conduit. Brassow fails to teach the gas burning system.

Official Notice is taken of the fact that it is well known to provide buildings with ventilation conduits; in order to provide fresh air. It would have been obvious to one of ordinary skill in the art at the time of the invention to have further modified the Brassow system to have a ventilation conduit, in order to provide fresh air to the building.

Berezoutsky teaches a specimen collecting conduit and displaceable extraction conduit, in order to collect samples form underground.

Butler teaches the desirability of sampling and monitoring underground disposal sites.

Cummings teaches a system for generating electricity from gas.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have further modified the Brassow system to have included the conduits, pipe and displaceable conduit; in order to collect samples and monitor the disposal space.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have further modified the Brassow system to have included a gas burning system for generating electricity as called for in claim 12, in order to provide power.

With regards to claim 13 the "spent oil well" is a product-by process limitation; which is deemed to be anticipated by the salt dome taught by Brassow.

### ***Response to Arguments***

4. Applicant's arguments with respect to claims 1 and 11 have been considered but are largely moot in view of the new ground(s) of rejection.


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5. A new ground of rejection is made in light of applicant's amendment to the independent claims. Examiner agrees with applicant's assertion that a sealed spent oil well is not the same as a salt dome, and that the rejection of [previous claims 9 and 13] the claims spent oil well as being the same as a salt dome was improper. Examiner does not concede that the salt domes do not include the claimed microorganisms; however, examiner agrees that salt domes are structurally different from sealed spent oil wells.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Kreck whose telephone number is 571-272-7042. The examiner can normally be reached on M-F 5:30 am - 2:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Shackelford can be reached on 571-272-7049. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John Kreck  
Primary Examiner  
Art Unit 3673

20 March 2005